

## REMARKS

Careful examination of the application is sincerely appreciated.

In response to the claim objection, without conceding any statements or waiving any arguments in the Office Action claim 1 is amended to more clearly define the invention and advance the prosecution of the application. Withdrawal of the objection is requested.

According to the Office Action, claims 1-10 are rejected under 35 USC 103(a) as being obvious over US Patent 6,788,710 (hereinafter “Knutson”) in view of US Patent 6,377,309 (hereinafter “Ito”).

In response, the rejections are respectfully traversed as lacking sufficient factual support and failing to establish a *prima facie* case of obviousness in accordance with the established cases and statutory law.

It is respectfully submitted that the examiner failed to establish a *prima facie* case of obviousness. The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. 103 is set forth in MPEP § 706.02(j):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, if any one of the above-identified criteria is not met, then the cited references fail to render obvious the claimed invention and the claimed invention is thus distinguishable over the cited references.

Among other things, Knutson fails to teach or suggest Applicant's feature of "a first unit for generating an intermediate transport stream by creating available bandwidth in said input transport stream, the available bandwidth is created by inserting at least one null packet into the input transport stream such that said intermediate transport stream has a higher bit rate than said input transport stream" as recited in claim 1.

According to Knutson, a preferred embodiment of the invention is illustrated in FIG. 2. FIG. 2 includes most of the same elements shown in FIG. 1, as identified by the same reference numbers. The difference between FIGS. 1 and 2 is that trellis encoder 12 and trellis decoder 16 are deleted from the encoding/modulation chain and decoding/demodulation chain, respectively. According to Knutson, by eliminating trellis encoder 12 and trellis decoder 16 in an 8 VSB system, one out of every three bits in the datastream becomes available for other usage, for example, auxiliary information. Knutson teaches that to maintain data integrity and proper timing, the freed space must be filled with auxiliary information or null data. Knutson further teaches that in the case of the MPEG-2 compatible datastream, the added information and null data are packetized in a format compatible with the MPEG-2 standard.

Clearly, Knutson does not create available bandwidth as in the present invention. Knutson merely eliminates a trellis encoder, making the very same bandwidth available for other uses. It is apparent that in Knutson null packets are inserted in place of bits reserved for the

trellis encoder. By doing this, the same bit rate is maintained as in the input stream according to Knutson. This is explicitly stated in the patent, as reproduced above.

In contrast to Knutson, at least one null packet is inserted into a datastream (it is in addition to and not in place of other bits), such that the bit rate is increased, as recited in Applicant's claim 1. This feature is quite different from Knutson's disclosure.

Ito does not cure the deficiency in Knutson. Hence, the combination of Knutson and Ito fails to teach or suggest all of the features of the present invention as recited in claim 1.

In addition to Knutson and Ito not teaching the above-recited limitations, Applicants also maintain that it would not have been obvious to a person having ordinary skill in the art to modify Knutson by the teaching of Ito. Knutson is related to a method for processing a digital video tape recorder datastream and, more specifically, to inserting auxiliary data into the reproduced digital datastream. There is absolutely no mention of MPEG-4 in Knutson. So, it is not clear how a skilled artisan would modify Knutson with Ito when Knutson fails to disclose or even mention MPEG-4 datastream.

The mere similarity that both inventions deal with image processing should not preclude the present application since such a combination would not have been obvious to one skilled in the art.

In rejecting claims under 35 USC 103, the Examiner bears the initial burden of establishing a *prima facie* case of obviousness. In re Oetiker, 977 F. 2d 1443, 1445, 24 USPQ2d 1442, 1444 (Fed. Cir. 1992). See also In re Piasecki, 745 F. 2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing that some objective teaching

in the prior art of knowledge generally available to one of ordinary skill in the art suggest the claimed subject matter. In re Fine, 837 F. 2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

When determining obviousness, “[t]he factual inquiry whether to combine references must be thorough and searching.” In re Lee, 277 F. 3d 1338, 1343, 61 USPQ 1430, 1433 (Fed. Cir. 2002), citing McGinley v. Franklin Sports, Inc., 262 F. 3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001). “It must be based on objective evidence of record.” Id. “Broad conclusory statements regarding the teaching of multiple references, standing alone, are not ‘evidence.’” In re Dembiczak, 175 F. 3d 994, 999, 50 USPQ2d 1614, 1617. “Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material fact.” Dembiczak, 175 F. 3d at 1000, 50 USPQ2d at 1617, citing McElmurry v. Ark. Power & Light Co., 995 F. 2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993).

The suggestion on the Office Action that the combination of prior art references “would have been obvious to one of ordinary skill in the art...” is respectfully refuted. One may not utilize the teaching of the present application as a road map to pick and choose amongst prior art references for the purposes of attempting to arrive at the presently disclosed invention. The Federal Circuit has identified three possible sources for motivation to combine references including the nature of the problem to be solved, the teaching of the prior art, and the knowledge of persons of ordinary skill in the art. (See, In re Rouffet, U. S. Court of Appeals Federal Circuit, U.S.P.Q. 2d 1453, 1458.) There must be a specific principle that would motivate a skilled artisan, with no knowledge of the present invention, to combine the prior art as suggested in the Office Action. The use of hindsight in the selection of references is forbidden in comprising the case of obviousness. Lacking a motivation to combine references, a proper case of obviousness is not shown (see, In re Rouffet, 1458).

The Court stated:

"[V]irtually all [inventors] are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. Furthermore, rejecting parents solely by finding prior art corollaries for the claimed elements would permit an Examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." To prevent the use of hindsight based on the invention to defeat patentability of the invention. This court requires the Examiner to show a motivation to combine the references that create the case of obviousness. The Board (of Appeals) did not, however, explain what specific understanding of technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination. ... To counter this potential weakness in the obviousness contract the suggestion to combine requirements stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness."

In re Rouffet, 47 USPQ2d 1457-58 (Fed. Cir., July 15, 1998) (citations omitted).

More recently, the Federal Circuit again dealt with what is required to show a motivation to combine references under 35 USC 103. In this case, the Court reversed the decision of the Board of appeals stating:

"[R]ather than pointing to specific information in Holiday or Shapiro that suggest the combination..., the Board instead described in details the similarities between the Holiday and Shapiro references and the claimed invention, noting that one reference or the other in combination with each other... described all of the limitations of the pending claims. Nowhere does the Board particularly identify any suggestion, teaching, or motivation to combine the ... references, nor does the Board make specific—or even inferential—findings concerning the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any factual findings that might serve to support a proper analysis."

In re Dembiczak, 50USPQ2d 1614, 1618 (Fed. Cir., April 28, 1999) (citations omitted).

Thus, from both In re Rouffet and In re Dembiczak it is clear that the Federal Circuit requires a specific identification of a suggestion, motivation, or teaching why one of ordinary skill in the art would have been motivated to select the references and combine them.

The examiner's reasoning for the motivation, namely, that those skilled in the art would have been motivated to combine Knutson and Ito, could only have been made with impermissible hindsight based on the teaching of the present disclosure. The examiner's reasoning for the motivation for combining the references is nowhere recognized in the prior art, nor does the Examiner attempt to make any showing that the art recognized such problems.

Where a feature is not shown or suggested in the prior art references themselves, the Federal Circuit has held that the skill in the art will rarely suffice to show the missing feature. Al-Site Corp. v. VSI International Inc., 174 F. 3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (Rarely, however, will the skill in the art component operate to supply missing knowledge or prior art to reach an obviousness judgment).

Thus, Applicants again respectfully submit that the examiner has used impermissible hindsight to reject claims 1-10 under 35 USC 103. As discussed above, the Federal Circuit in In re Rouffet stated that virtually all inventions are combinations of old element. Therefore an examiner may often find every element of a claimed invention in the prior art. To prevent the use of hindsight based on the invention to defeat patentability of the invention, the examiner is required to show a motivation to combine the references that create the case of obviousness. Applicants respectfully submit that the examiner has not met this burden.

The mere fact that the prior art device could be modified so as to produce the claimed device is not a basis for an obviousness rejection unless the prior art suggested the desirability of the modification. See, In re Gordon, 733 F.2d 900, 902 (Fed. Cir. 1984), and In re Laskowski, 871 F. 2d 115, 117 (Fed. Cir. 1989).

The only suggestion that can be found anywhere for making these combinations appears to come from the present patent application itself.

In consideration of the use of improper hindsight for rendering a claim obvious in light of prior art, the Federal Circuit has stated that “to draw on hindsight knowledge of the patented invention, when the prior art does not contain or suggest that knowledge is to use the invention as a template for its own reconstruction – an illogical and inappropriate process by which to determine patentability.” (Sensorics, Inc. v. Aerosonic Corp., 81F.3d 1566, 38 USPQ2d 1551 (Fed. Cir. 1996). “To imbue one of ordinary skill in the art with knowledge of the invention ensued, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against each teacher.” (In re Zurko, 111 F. 3d 887, 42 USPQ2d 1476 (Fed. Cir. 1997). A critical step is analyzing the patentability of claims pursuant to section 103 (a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field (cited reference omitted). Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one ‘to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is

used against its teacher (cited reference omitted).'" (*In re Kotzab*, 208 F. 3d 1352, 54 USPQ2d 1308 (Fed. Cir. 1997).

Applicant respectfully maintains that there is no suggestion in the prior art references to make the combinations in the manner proposed by the examiner to achieve the Applicants' claimed invention.

Considering MPEP 2143, it is stated:

"THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION ... The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." And, "FACT THAT REFERENCES CAN BE COMBINED OR MODIFIED IS NOT SUFFICIENT TO ESTABLISH PRIMA FACIE OBVIOUSNESS... The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F. 2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)... Although a prior art device " may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.)"

There is no such suggestion in either Knutson or Ito that would justify such a combination.

It is respectfully submitted that in light of the state of the law as set forth by the Federal Circuit and the examiner's lack of specificity with regard to the motivation to combine the cited references, none of the suggested combinations of prior art utilized to reject claims 1-10 finds proper motivation for combination.

Since at least one of the above-identified criteria of the test for determining if a claim is rendered obvious is not met, the cited references, separately or in combination, fail to render

obvious the claimed invention. The claimed invention, according to claim 1, is thus distinguishable over the cited references.

At least for the above reasons, Applicant submits that the rejection of claim 1 has been overcome and can no longer be sustained. Applicant respectfully requests withdrawal of the rejection and allowance of the claim.

Analysis of independent claims 4, 6 and 9 is analogous to the one of claim 1, as presented hereinabove. To avoid repetition, claims 4, 6 and 9 will not be discussed in detail with the understanding that they are patentable at least for the same reasons as claim 1. Applicants, therefore, respectfully request withdrawal of the rejection and allowance of claims 4, 6 and 9.

Claims 2, 7, 10 and 15-17 depend from independent claims, which have been shown to be allowable over the prior art references. Accordingly, claims 2, 7, 10 and 15-17 are also allowable by virtue of their dependency, as well as the additional subject matter recited therein. Applicants submit that the reason for the rejection of claims 2, 7, 10 and 15-17 has been overcome and respectfully requests withdrawal of the rejection and allowance of the claims.

With respect to claims 11-14, it is respectfully submitted that the rejection of those claims is moot.

An earnest effort has been made to be fully responsive to the examiner's correspondence and advance the prosecution of this case. In view of the above amendments and remarks, it is believed that the present application is in condition for allowance, and an early notice thereof is earnestly solicited.

Please charge any additional fees associated with this application to Deposit Account No. 14-1270.

Respectfully submitted,

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